Remarks

Ensure that all connected controllers are assigned different addresses.

An interface converter is required for communication between the RS232 interface of the PC and the RS485 interfaces of the controllers.

If necessary, check the setting for the used serial port in the program settings menu. COM1 is preset. After changings of the serial port setting the program has to be restarted.

Before the program is started, the dongle has to be connected to the parallel port of the computer. If a printer is used, the dongle must be installed between computer and printer.

Exception: The demoversion needs no dongle but only supports addresses 1-5 and configurations for groups 1-2 only. The demoversion duration of validity is limited. Please refer to the menu "Help->About" for the date on which the user rights expire.

Keyboard operations:

Individual selection groups in the dialog windows may be selected using the <TAB>-key.

Menus and buttons with a highlighted letter can be activated by pressing the key combination <ALT>+letter.

The cursor bar in the process survey window can be moved via the cursor or the tab keys.

Close windows using the <ESC>-key.

Installation

Insert the PCS disk into the disk drive and change to the disk drive by entering (e.g.) "a:" <ENTER>, then start the setup program by entering: PCSSETUP

A dialog window appears to enter the complete path for the directory into which the PCS-files shall be copied, e.g. 'C:\PCS'.

The names of the subdirectories (terms between two '\'-tokens) must not contain more than 8 characters. If the desired directory does not exist, it will be created.
Confirm with <OK>..

Follow the instructions on the screen

- Alternative manual installation:
Create a directory on the hard drive, e.g. C:\PCS
Copy the following files from the disk into this directory:
'PCS.EXE'
'NORMAL.INI'
'EGAVGA.BGI'
'PCSREG.PNR'
'TD.DAT'

Operation

Start: Change to the directory containing the PCS.EXE file and start the program by entering: PCS

Process survey

Once the program has been started, the overview window will appear automatically. It contains the cyclically interrogated parameters and their text descriptions, as well as pure text lines. Unless otherwise specified, actual value 1, setpoint value 1 and address 5 are pre-set.

Texts describing a receive value are shown in black, if a connection to the controller exists. If no connection can be established, the text will appear grey, and the corresponding value shows "---.-". Text-only rows are always displayed in black.

If actual values are shown, "ERROR" will be displayed instead of a received value, if there is a fault with the corresponding measuring input.

Parameters that can be modified are highlighted in blue. They can be selected with the cursor (black bar) and changed. The new value is sent to the controller with the <ENTER>-key.

Menu: GRAPH->START LOGGER

This menu item starts the data logger, i.e. the parameters selected in the configuration menu for the several graphic groups are continuously sampled and stored in files. Starting of the data logger is also a prerequisite for the display of active data in the menu "Graph ->Show actual data".

Each graphic group has its own file, which is updated continuously. The file names are GROUPx.GFK", with "x" representing the group number.

If the data logger is restarted after a logger stop or program restart, the data are appended to the file.

If the parameter structure of a group is changed, the associated logger file "GROUPx.GFK" is recreated when the logger is started. The data stored so far are then stored in a file named "Sx.Gy", with x representing a continuous number and y the group number.

The data generated during continuous operation are stored in the files "GROUPx.GFK" for up to one week, after which the files are recreated and the previous data are archived.

Remarks to the automatic data archiving

For each defined group a file is created in which the transferred data is stored intermediately until the weekly archiving is performed. As an example, the file "GROUP5.GFK" is created for logger group 5. If the program is restarted within the same week, the new data is appended to the end of the file.

Archiving takes place every Sunday during the first scan after 6 AM, however, no later than after 7 days. During this process, a recorded file is named and saved according to the date. Example: Recording file for group 5 ("GROUP5.GFK") on 29.11.1998: File name "19981129.G5".

The oldest archive file is always deleted on the occasion of the fourth subsequent archiving, in order to limit the required storage space. If you wish to defeat this automatic routine, always save the file in time or rename it.

Menu GRAPH->STOP LOGGER

Selecting this menu item will stop the data logger.

Menu GRAPH->SHOW ACTUAL DATA

The current data recordings are groupwise as configured displayed in several diagrams. The next group can be displayed with the <F4> key, <F3> will display the previous group.

The top edge of the mask shows the name of the group (if defined) , the designations of the recorded parameters as well as the currently transmitted values, the colors of which correspond to the displayed curves.

The current weekday, the date and time are displayed in the field >Time< . Beneath the time axis, a status window displays possible measuring input errors as a red bar indicating the respective time the error occurred.

Use the keys <Shift>+<TAB> (backward) and <TAB> (forward) to scroll through the graphics. Mask a grid out or in by pressing function key <F1>.

Press function key <F2> to switch the graphics cursor ON and OFF. The cursor can be moved with the aid of the cursor keys and tab keys. In the cursor mode, the respective values of the cursor position instead of the current data are displayed in the top edge of the mask. The masked in time coincides with the scanning time of the cursor position (green).

Optional possible adjustments using key <F5>:

A label for each group, appearing on the top of the graph, may be entered.

A different scanning time in minutes, may be entered. It is valid for all groups.

The y-axis (temperature) in the graphics mode can be scaled manually or automatically for each group. In the automatic setting, scaling takes place automatically based on the minimum and maximum value recorded. The manual setting allows values for the upper and lower range limit to be entered.

Menu GRAPH->SHOW ARCHIVED DATA

A data recording previously archived (also refer to:"Automatic data archiving"), is displayed in a diagram.

Enter the file name with the aid of a dialog window. The display corresponds to the function "GRAPH->SHOW ACTUAL DATA" in the cursor mode.

Menu PROGRAM->QUIT
Concludes the program.

Menu OPTIONS

->CONFIGURATION *(only accessible by entering a password)*

This menu selection will open an editor, allowing row-by-row configuration of the process survey window and parameter selection for the data logger (graphics). The editor entries are either discarded with the >Cancel< key or saved with >OK<.

Initially, the configuration of the left column of the overview window is displayed (column 01/02). The configuration of the second column (column 02/02) can be displayed with the "next column" button.

A. Configuration of the process survey

"name" field:
Here, text can be entered for each row, which is either associated with an adjacent value or serves as a heading or for structuring purposes.

"change" field:
Only effective in combination with a value in the "code" column. This determines whether the value can be changed or not. Permissible entries are "y" or "n". If "y" is entered, an entry field will appear in the process survey window.

"Adr" field:
Only effective in combination with a value in the "code" column. Address entry of the associated controller.

"Code" field:
Here, the parameter code of the value to be displayed is entered. The code can be found in the operating instructions of the controller.

B. Configuration of the data logger (graphics)

The settings for "graph" and "line" refer to the graphics window and the data logger functions.

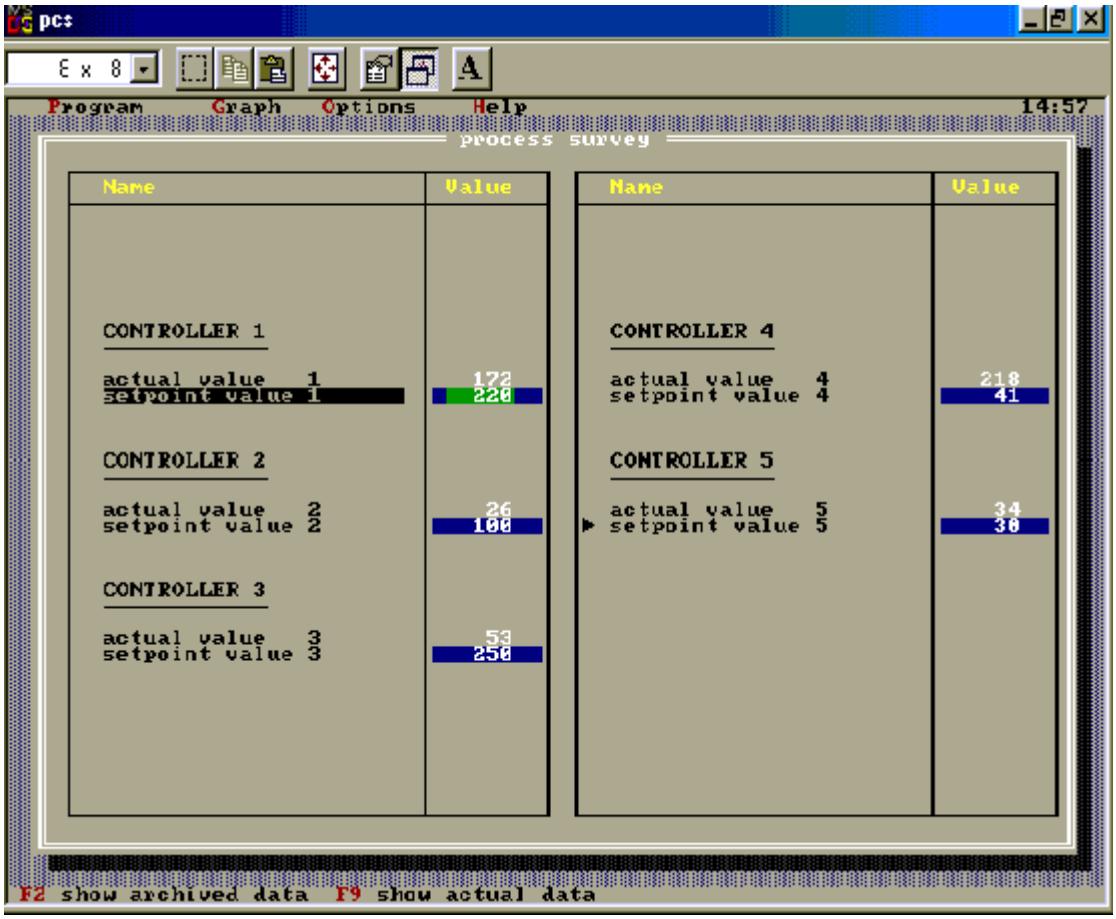
A maximum of 30 graphics windows, so-called groups, can be defined. Each of these groups can display up to 6 parameters simultaneously as a line chart.

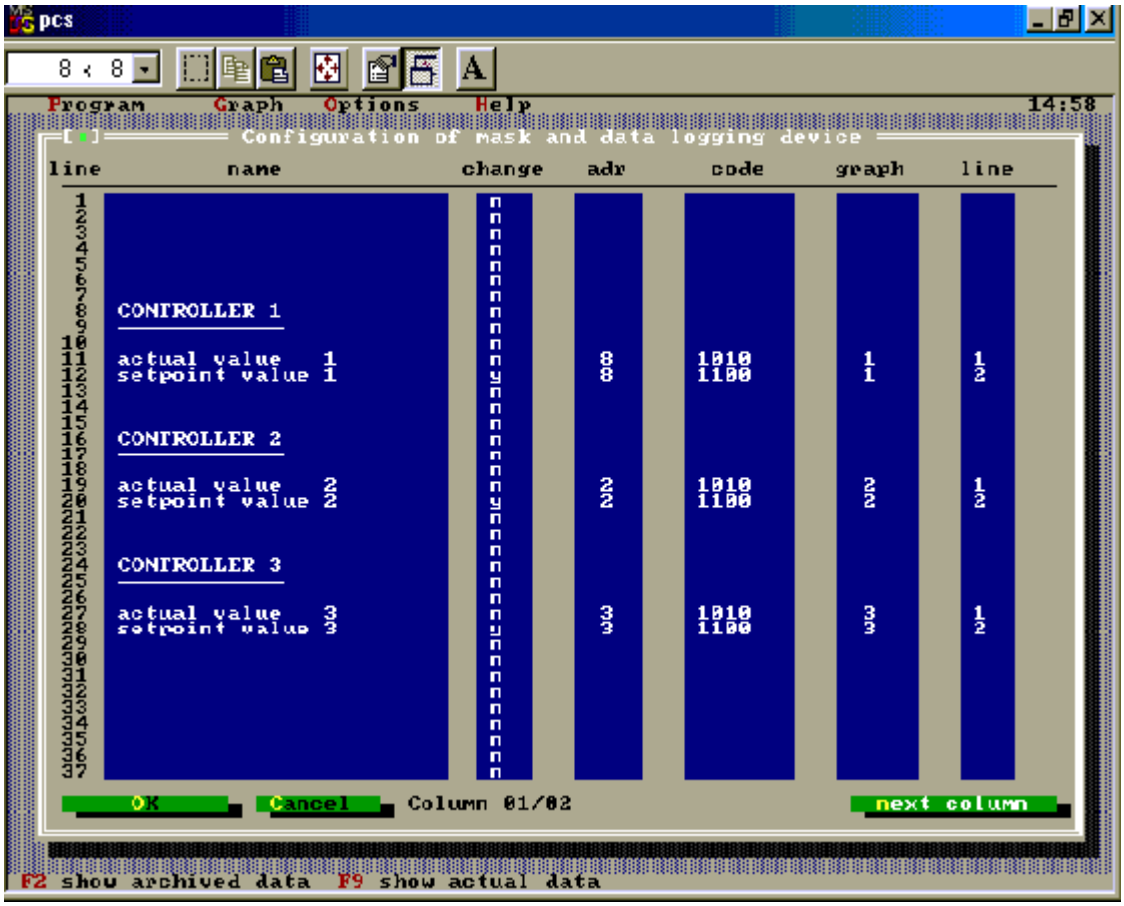
"Graph" field:
Entry determines in which group the parameter for this row will appear. Possible entries are "1" to "30".

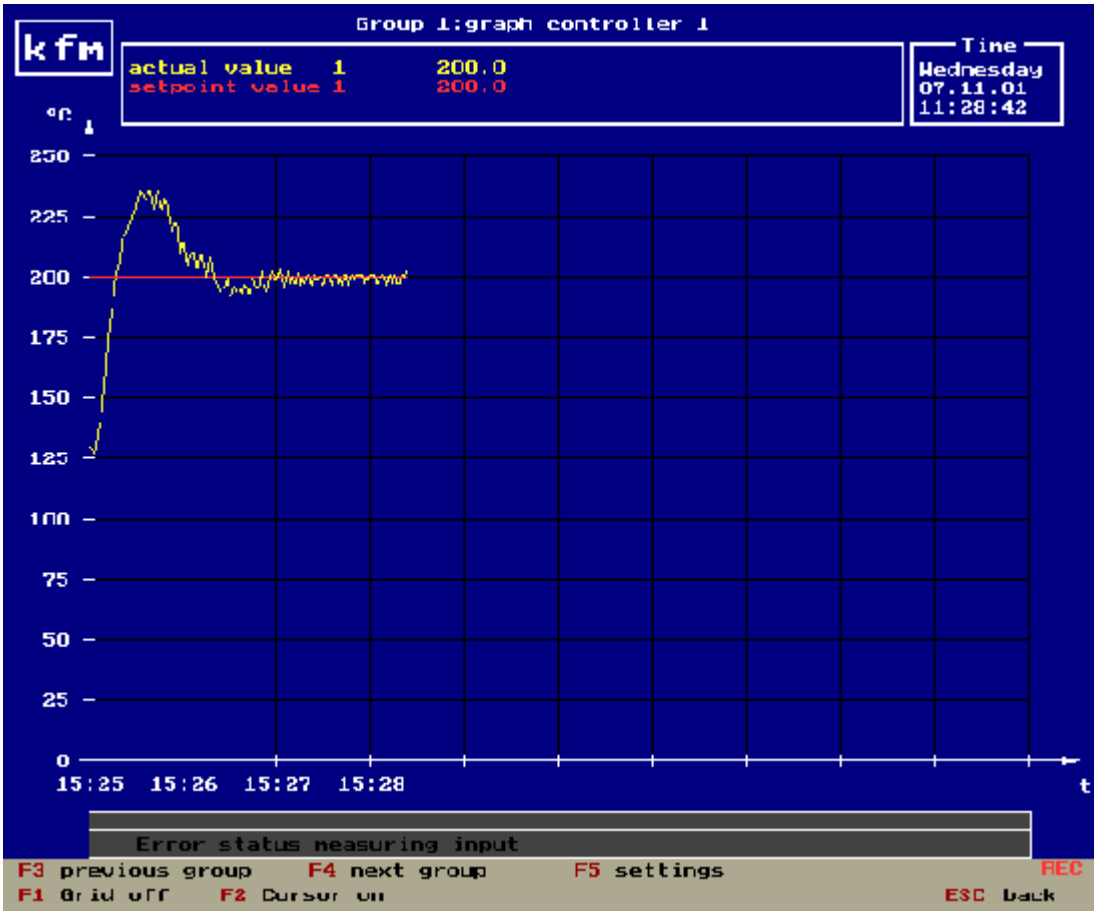
"Line" field:
The desired graphics line (colour) for this parameter is selected here. Possible entries are "1" to "6" for the colours yellow (1), red (2), light blue (3), green (4), purple (5) and deep blue (6).

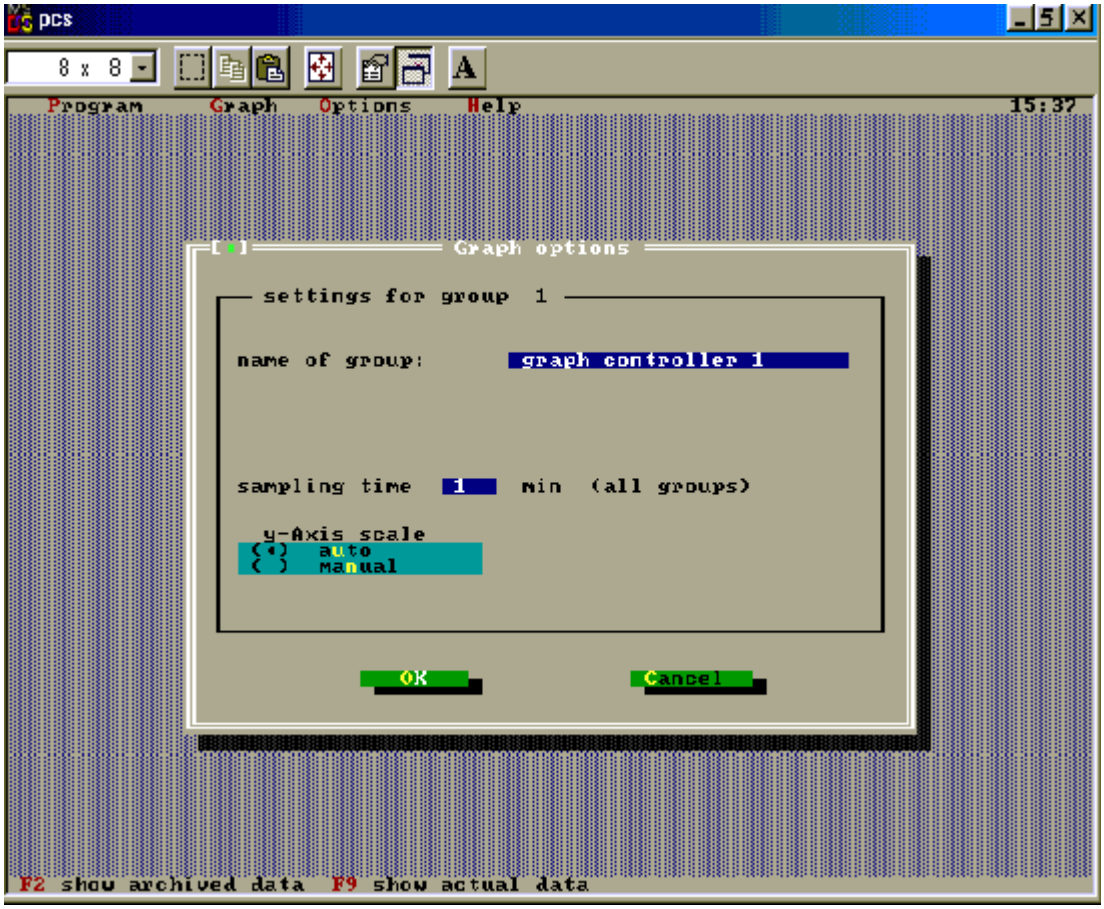
->PROGRAM SETTINGS
Perform important initial setting in this dialog window. Check whether the serial port and the path for the internal parameter file "NORMAL.INI" are correctly set. If the serial port setting is changed, restart the program.

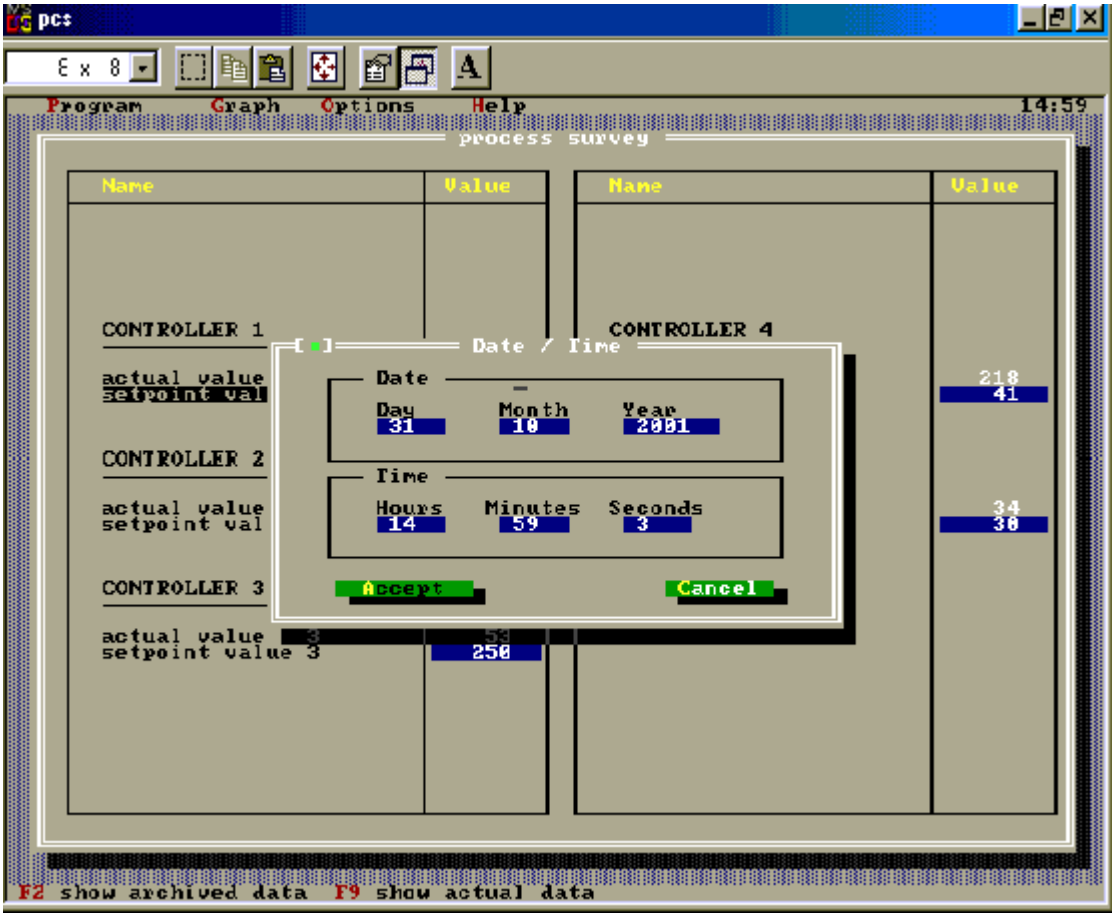
->DATE / TIME
Exercise caution when changing the date and time, as this has an effect on the data recording and the archiving system. New date and time data is only accepted for logically admissible entries and not taken over until confirmed by pressing >accept<.

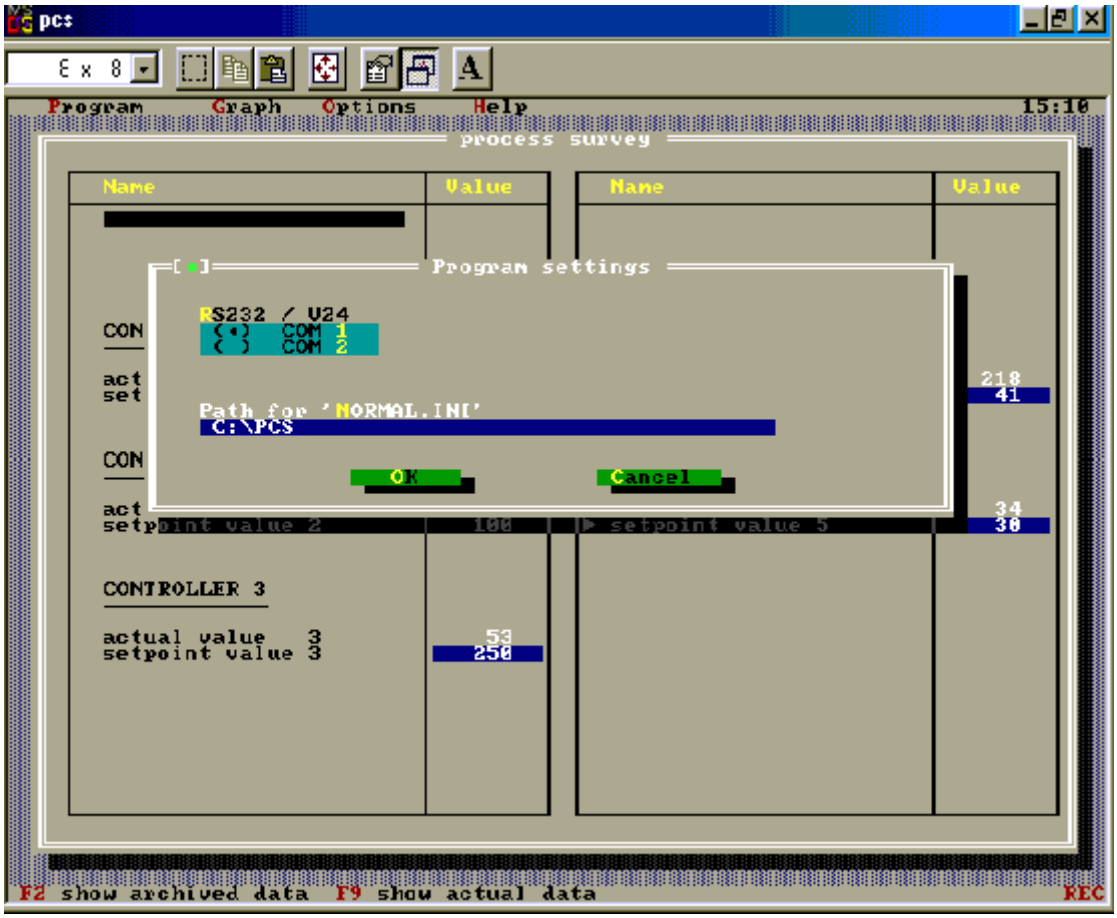

pcs
Program Graph Options Help 14:57
process survey
Name Value Name Value
CONTROLLER 1
actual value 1 172
setpoint value 1 220
CONTROLLER 2
actual value 2 26
setpoint value 2 100
CONTROLLER 3
actual value 3 53
setpoint value 3 250
CONTROLLER 4
actual value 4 218
setpoint value 4 41
CONTROLLER 5
actual value 5 34
setpoint value 5 30
F2 show archived data F9 show actual data


pcs
Program Graph Options Help 14:58
Configuration of mask and data logging device
line name change adr code graph line
CONTROLLER 1
actual value 1 8 1010 1 1
setpoint value 1 8 1100 1 2
CONTROLLER 2
actual value 2 2 1010 2 1
setpoint value 2 2 1100 2 2
CONTROLLER 3
actual value 3 3 1010 3 1
setpoint value 3 3 1100 3 2
OK Cancel Column 01/02 next column
F2 show archived data F9 show actual data


Group 1:graph controller 1
kfm
actual value 1 200.0
setpoint value 1 200.0
Time
Wednesday
07.11.01
11:28:42
°C
250
225
200
175
150
125
100
75
50
25
0
15:25 15:26 15:27 15:28
t
Error status measuring input
F3 previous group
F4 next group
F5 settings
REC
F1 Grid off
F2 Cursor on
ESC back


pcs
8 x 8
Program
Graph
Options
Help
15:37
Graph options
settings for group 1
name of group:
graph controller 1
sampling time
1
min
(all groups)
y-Axis scale
(•) auto
( ) manual
OK
Cancel
F2 show archived data
F9 show actual data


pcs
Program Graph Options Help 14:59
process survey
Name Value Name Value
CONTROLLER 1
actual value
setpoint val
CONTROLLER 2
actual value
setpoint val
CONTROLLER 3
actual value 3
setpoint value 3
250
CONTROLLER 4
218
41
34
30
Date / Time
Date
Day 31
Month 10
Year 2001
Time
Hours 14
Minutes 59
Seconds 3
Accept
Cancel
F2 show archived data F9 show actual data


pcs
Program Graph Options Help 15:10
process survey
Name Value Name Value
Program settings
RS232 / V24
( ) COM 1
( ) COM 2
Path for 'NORMAL.INI'
C:\PCS
OK
Cancel
CONTROLLER 3
actual value 3
setpoint value 3
53
250
setpoint value 2
100
setpoint value 5
218
41
34
30
F2 show archived data F9 show actual data
REC